

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing
(day/month/year)

Applicant's or agent's file reference

P040517P0

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/JP2005/019679

International filing date (day/month/year)

26.10.2005

Priority date (day/month/year)

26.10.2004

International Patent Classification (IPC) or both national classification and IPC

Applicant

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.

1. This opinion contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the opinion |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input checked="" type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP

Date of completion of this opinion

Authorized officer

Facsimile No.

Telephone No.

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Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed
 - ☐ the translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rule 12.3(a) and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material
 - ☐ on paper
 - ☐ in electronic form
 - c. time of filing/furnishing
 - ☐ contained in the international application as filed
 - ☐ filed together with the international application in electronic form
 - ☐ furnished subsequently to this Authority for the purposes of search
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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Box No. IV

Lack of unity of invention

1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has, within the applicable time limit:
- ☒ paid additional fees
 - ☐ paid additional fees under protest and, where applicable, the protest fee
 - ☐ paid additional fees under protest but the applicable protest fee was not paid
 - ☐ not paid additional fees
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
- ☐ complied with
 - ☒ not complied with for the following reasons:

The "special technical feature" of the subject matters of claims 1-23 relates to a technique in which a radio terminal device sends communication profile information including information on a radio communication method, a frequency band to be used, a communication start time and a communication continuation time to a management terminal device, and the management terminal device compares the acquired communication profile information with a past communication permission list, generates communication permission/non-permission information indicating permission or non-permission of communication based on the communication profile information, and sends the communication permission/non-permission information to the radio terminal device.

The "special technical feature" of the subject matter of claim 24 relates to a calculation device calculating a degree of interference indicating an extent of interference with a first communication link by a second communication link adopting a radio communication method different from that of the first communication link.

The "special technical feature" of the subject matter of claim 25 relates to a calculation device calculating a degree of interference indicating an extent of interference with a first communication link by a second communication link adopting a radio communication method different from that of the first communication link, and calculating an expected value of throughput in the first communication link from a standard throughput and a throughput parameter coefficient.

Here, the subject matter of claim 24 and the subject matter of claim 25 are in common with regard to the degree of interference indicating an extent of interference with a first communication link by a second communication link adopting a radio communication method different from that of the first communication link. However, it is well known that a plurality of communication links each have a degree of interference, and the degree of interference is not considered to be a special technical feature.

Therefore, these inventions are not considered to be so linked as to form a single general inventive concept, since they do not have a technical relationship including one or more of the same or corresponding special technical features.

Therefore, this international application is considered to have three inventions.

4. Consequently, this opinion has been established in respect of the following parts of the international application:
- ☒ all parts
 - ☐ the parts relating to claims Nos. _____

**WRITTEN OPINION OF THE
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International application No.
PCT/JP2005/019679

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	3, 4, 7, 8, 10, 13, 16-19, 24, 25	YES
	Claims	1, 2, 5, 6, 9, 11, 12, 14, 15, 20-23	NO
Inventive step (IS)	Claims	3, 4, 7, 8, 10, 13, 16-19, 24, 25	YES
	Claims	1, 2, 5, 6, 9, 11, 12, 14, 15, 20-23	NO
Industrial applicability (IA)	Claims	1-25	YES
	Claims		NO

2. Citations and explanations:

Document 1: JP, 2003-258812, A (Sony Corporation), 12 September, 2003 (12.09.03), paragraphs [0001]-[0105]

Document 2: JP, 60-239139, A (Matsushita Electric Industrial Co., Ltd.), 28 November, 1985 (28.11.85), full text

Document 3: JP, 2001-217759, A (Matsushita Electric Industrial Co., Ltd.), 10 August, 2001 (10.08.01), paragraph [0037]

Document 4: JP, 2004-007652, A (Nokia Corporation), 8 January, 2004 (08.01.04), paragraphs [0013]-[0018]

Document 1 cited in the ISR describes a system having a plurality of radio networks of different signal modes, wherein a control station of each radio network performs sending/reception in a common signal mode for a signal of information exchanged for time-dividing a transmission frame period and using the same, such as a beacon signal, wherein a network use state of any other radio network (see, for example, transmission frame period, band use information within the transmission frame period, etc.) is acquired by a beacon signal, wherein if there is a beacon signal sent from the other radio network, the transmission frame period and the band assignment state of the other radio network are identified and a comparison is made with the band assignment state of the own network to detect existence/nonexistence of a time of collision, and if collision occurs, a request for setting a different system use period is sent to the other control station as a common control signal, and wherein if the request for setting a different system use period has been received, a setting is made based on the request.

Document 2 cited in the ISR describes a mobile communication system sharing a frequency, wherein a direct-current level is monitored to detect an interference level.

Document 3 cited in the ISR describes that the power level of a desired wave in a PHS system is calculated, and the calculated power level and the average power level of an input signal are used to calculate a degree of interference.

Document 4 cited in the ISR describes a system assigning a dynamic channel for a packet exchange service, wherein an incoming interference value and an existing timeslot capacity are monitored to derive an estimated throughput value.

a. Claims 1, 2, 5, 6, 9, 11, 12, 14, 15, 20, 22 and 23

The setting request of a control station detecting a collision in document 1 cited in the ISR is information on whether a band obtained from a network use state can be used or not, and therefore

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Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

corresponds to communication permission/non-permission information in the subject matters of the claims.

Furthermore, in the subject matters of the claims, communication profile information includes information on a radio communication method, a modulation method and coding, but control performed using the information is not particularly described, and therefore the information described above is not considered to have a special effect. Therefore, including a radio communication method, a modulation method and coding in communication profile information is a design variation that could be selected as required by a person skilled in the art.

b. Claim 21

Document 1 cited in the ISR does not describe a configuration of having a relay terminal device between control stations, but the provision of a relay terminal if direct communications cannot be carried out between control stations is commonly practiced, and could have been easily conceived of by a person skilled in the art.

c. Claims 3, 4, 7, 8, 10, 13 and 16-19

The subject matters of claims 3, 4, 7, 8, 10, 13 and 16-19 are neither disclosed in any of the documents cited in the ISR nor obvious to a person skilled in the art. Particularly, none of the documents discloses that required throughput information is acquired in addition to communication profile information, an expected throughput value is calculated, and the expected throughput value is compared with the required throughput information to determine whether communication is permitted or not, or that if non-permission information has been received, new communication profile information generated is sent to a management terminal device.

d. Claim 24

The subject matter of claim 24 is neither disclosed in any of the documents cited in the ISR nor obvious to a person skilled in the art. Particularly, none of the documents discloses that the degree of interference is determined from a first link bandwidth, an overlapping bandwidth, a first power value, a second power value, an interference parameter coefficient and a unit time.

e. Claim 25

The subject matter of claim 25 is neither disclosed in any of the documents cited in the ISR nor obvious to a person skilled in the art. Particularly, none of the documents discloses that the expected throughput value is determined from a standard throughput, a throughput parameter coefficient and the degree of interference.



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Date

09.03.07

Reference	Application No./Patent No. 05799394.1 - 1249 PCT/JP2005019679
Applicant/Proprietor MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.	

Entry into the European phase before the European Patent Office

These notes describe the procedural steps required for entry into the European phase before the European Patent Office (EPO). You are advised to read them carefully: failure to take the necessary action in time can lead to your application being deemed withdrawn.

1. The above-mentioned international patent application has been given European application No. 05799394.1.
2. Applicants **without** a residence or their principal place of business in an EPC contracting state may themselves initiate European processing of their international applications, provided they do so before expiry of the 31st month from the priority date (see also point 6 below).

During the European phase before the EPO as designated or elected Office, however, such applicants must be represented by a professional representative (Arts. 133(2) and 134(1), (7) EPC).

Procedural acts performed after expiry of the 31st month by a professional representative who acted during the international phase but is not authorised to act before the EPO have no legal effect and therefore lead to loss of rights.

Please note that a professional representative authorised to act before the EPO and who acted for the applicant during the international phase does not automatically become the representative for the European phase. Applicants are therefore strongly advised to appoint in good time any representative they wish to initiate the European phase for them; otherwise, the EPO has to send all communications direct to the applicant.

3. Applicants **with** a residence or their principal place of business in an EPC contracting state are not obliged to appoint, for the European phase before the EPO as designated or elected Office, a professional representative authorised to act before the EPO.
However, in view of the complexity of the procedure it is recommended that they do so.
4. Applicants and professional representatives are also strongly advised to initiate the European phase using EPO Form 1200 (available free of charge from the EPO). This however is not compulsory.



5. To enter the European phase before the EPO, the following acts must be performed.
(N.B.: Failure validly to do so will entail loss of rights or other adverse legal consequences.)

5.1 If the EPO is acting as **designated or elected Office** (Arts. 22(1)(3) and 39(1) PCT respectively), applicants must, within 31 months from the date of filing or (where applicable) the earliest priority date:

a) Supply a translation of the international application into an EPO official language, if the International Bureau did not publish the application in such a language (Art. 22(1) PCT and R. 107(1)(a) EPC).

If the translation is not filed in time, the international application is deemed withdrawn before the EPO (R. 108(1) EPC).

This loss of rights is deemed not to have occurred if the translation is then filed within a two-month grace period as from notification of an EPO communication, provided a surcharge is paid at the same time (R. 108(3) EPC).

b) Pay the national basic fee and, where a supplementary European search report has to be drawn up, the search fee ; R. 107(1)(c) and (e) EPC).

c) If the time limit under Article 79(2) EPC expires before the 31-month time limit, pay the designation fee for each contracting state designated (R. 107(1)(d) EPC).

d) If the time limit under Article 94(2) EPC expires before the 31-month time limit, file the written request for examination and pay the examination fee; R. 107(1)(f) EPC).

e) Pay the third-year renewal fee if it falls due before expiry of the 31-month time limit (R. 107(1)-(g) EPC).

If the fees under (b) to (d) above are not paid in time, or the written request for examination is not filed in time, the international application is deemed withdrawn before the EPO, or the contracting-state designation(s) in question is (are) deemed withdrawn (R. 108(1) and (2) EPC). However, the fees may still be validly paid within a two-month grace period as from notification of an EPO communication, provided the necessary surcharges are paid at the same time (R. 108(3) EPC). For the renewal fee under (e) above, the grace period is six months from the fee's due date (Art. 86(2) EPC).

For an overview of search and examination fees, see the Notice from the European Patent Office dated 1 March 2006, OJ EPO 2006, 192.

5.2 If the application documents on which the European grant procedure is to be based comprise more than ten claims, a claims fee is payable within the 31-month time limit under Rule 107(1) EPC for the eleventh and each subsequent claim (R. 110(1) EPC). The fee can however still be paid within a one-month grace period as from notification of an EPO communication pointing out the failure to pay (R. 110(2) EPC).

6. If the applicant had a representative during the application's international phase, the present notes will be sent to the representative, asking him to inform the applicant accordingly.

All subsequent communications will be sent to the applicant, or - if the EPO is informed of his appointment in time - to the applicant's European representative.



7. For more details about time limits and procedural acts before the EPO as designated and elected Office, see the EPO brochure

How to get a European patent
Guide for applicants - Part 2
PCT procedure before the EPO - "Euro-PCT"

This brochure, the list of professional representatives before the EPO, Form 1200 and details of the latest fees are now all available on the Internet under

<http://www.european-patent-office.org>

Receiving Section

